National Aeronautics and Space Administration
Goddard Space Flight Center

Inside Wallops

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NASA's Earth Science Program Adjusts to ADEOS Loss

WFF Provided T&DA Support.....

"The failure of Japan's Advanced Earth Observing Satellite (ADEOS or Midori) spacecraft with the two NASA instruments aboard it is a real blow to NASA's science program," said Mike Mann, Deputy Associate Administrator, NASA's Mission to Planet Earth Strategic Enterprise.

"Fortunately, much of the ozone data provided by the Total Ozone Mapping Spectrometer (TOMS) science instruments aboard ADEOS can be provided by instruments on another spacecraft. However, the sea-surface winds data provided by the NASA Scatterometer (NSCAT) will be harder to replace and we're opening essentially new opportunities for research and operational users worldwide," Mann said.

The two NASA instruments were aboard the ADEOS spacecraft, which on June 30 was declared lost by the National Space Development Agency of Japan (NASDA).

Wallops was providing data acquisition support of ADEOS from two sites — the Wallops Orbital Tracking Station and the University of Alaska, Fairbanks.

Two 11-meter antennas were retrieving data from all of the instruments on ADEOS. This data was stored on tape and forwarded to NASDA.

In addition, data from the two NASA instruments was "stripped out" and provided in real-time to the National Oceanic and Atmospheric Administration.

"The data we have obtained to date are extremely valuable," said Jim Graf, NSCAT project manager at the Jet Propulsion Laboratory. "If we knew we were limited to just nine months of data, we would have chosen the period we actually got. We obtained coverage over the summer and winter monsoon seasons and what should be the onset of an El Nino. Perhaps the largest loss is the discontinuity of the long-term data set, which is being used to understand interannual and decadal variations in our climate."

Because this instrument provided measurements that will be needed over the long term, NASA was already developing a second scatterometer instrument to continue this vital data set.

That instrument, called "Sea Winds," will be delivered to NASDA for integration on the spacecraft next April and is scheduled for launch in 1999 on ADEOS II.

The launch of a TOMS sensor aboard ADEOS was helping to extend the unique data set of global total column ozone measurements begun by a similar instrument carried aboard NASA's Nimbus-7 satellite in 1978 and extended until December 1994 with the Meteor-3 TOMS.

Although it also provided ozone coverage, NASA's TOMS/Earth Probe instrument also had been providing high ground resolution research data to complement the global data of the spectrometer on ADEOS. As a result, its orbit is different than TOMS/ADEOS.

NASA is considering raising TOMS/EP to a higher orbit to provide contiguous Earth coverage.

Breaking News.....

The first round-the-world flight in the northern hemisphere of a scientific balloon was completed on July 6. More on this ground breaking flight in the next issue of *Inside Wallops*.

NASA 515 based out of the Langley Research conducted its final mission June 27 at Wallops. The aircraft is being retired and will be placed on exhibit in Seattle, WA.

Wallops Mission 2000

The Wallops Mission 2000 Implementation Plan is currently scheduled to be unveiled by NASA Administrator Daniel Goldin and Congressional representatives from Virginia and Maryland at Wallops on July 21. Copies of the Plan will be distributed to employees following the unveiling.

A briefing on the Plan will be presented for all civil service and contractor employees at 2 p.m., Monday, July 14, in Building D-10.

Balloon Flies in Alaska

An upper atmospheric payload carried by a four million cubic foot NASA scientific balloon was successfully flown on June 30 from Fairbanks, AK.

The objective of the experiment was to obtain vertical profiles from 6 to 19 miles of gases in the atmosphere on different time scales.

The principal investigator was Dr. William Brune, from Penn State University.

Chester Jackson Recognized for Community Service

Chester Jackson, (H&H), was presented the Eastern Shore Chamber of Commerce's Outstanding Citizen Award at the Chamber's 44th annual dinner meeting on June 24.

Jackson, owner of Countryside Auction, Parksley, donates his services as auctioneer for auctions held for various organizations, such as Ducks Unlimited, Broadwater Academy and the Eastern Shore Arts Council.

Chamber President Scott Harvard said Jackson "travels the entire Delmarva Peninsula on his own time and at his own expense to help worthwhile causes, ... From health to education to civic and fraternal causes, all have benefited from this person's talent and charitable nature."

Sunglasses and Sunroofs

by Dianne Hargrove, R.N.

No one is immune to sunlight related eye problems caused by ultraviolet (UV) rays. Sunglasses can enhance the normal light filtering capabilities of the eyes and protect against the sun's damaging rays.

Good sunglasses will reduce glare, filter out 99 to 100 percent of the UV rays, provide visual protection, be comfortable and not distort colors. When you purchase sunglasses, look for a statement as to the amount of UV radiation that is blocked from reaching the eye. The lower the amount the better.

As much as 50 percent of sunlight comes from above and gets past many sunglasses. For maximum protection, it is recommended that a brimmed hat be worn. Sunglasses that wrap around the face also help minimize the amount of harmful light entering the eyes.

Neutral gray or "smoke" lenses provide the best color perception. Other good choices are amber or brown tints which usually block more blue light or green lenses. Red, orange, blue and purple tints are unsuitable because they may interfere with color perception and tend to let in too much UV light.

Remember too, that you do not have to go out in the sun to damage your skin. Sunlight that shines through a skylight, solarium or a sunroof can be harmful to exposed skin.

Usually sunlight that comes through a car window or the windows of a building cause no harm because most UV rays do not pass through and those that do enter on an angle. Skylights, solariums and sunroofs can be a problem because rays are direct. As a result, fewer UV rays are deflected.

Employees enjoyed sunny skies, a cool breeze and good food at the annual July 4 picnic. PAO Digital Photo

July Events at the Visitor Center

July 19 - A model rocket launch will be held at 1 p.m. Models of varying types and sizes are launched, including models of NASA launch vehicles. Model rocketeers are invited to bring their own rockets. The launch will be canceled if it is raining or if winds exceed 18 mph.

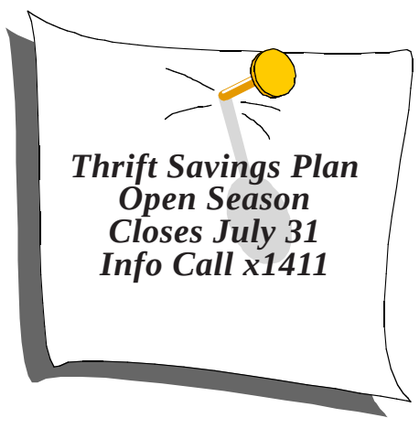
Sundays — Humans in space is the subject of a 1 p.m. program for children of all ages. This 20-minute program looks at living and working in space, including a review of the astronauts' culinary delights and their wardrobe. The program is followed by a hands-on children's activity during which children have the opportunity to create their own "space helmet".

Daily — "Puppets in Space", a 10-minute puppet show, will be presented at 2 p.m. Puppet astronauts and Sam the monkey will explore space flight, including the space suit. An eight minute version of the film "Astro-smiles" follows the puppet show.

Daily — Children aged 5-10 years old can earn a "Space Ace" certificate and a lithograph during their Visitor Center experience by completing an activity sheet.

Correction

The June 30 issue of *Inside Wallops* incorrectly identified the undergraduate student assigned to Brooks Shaw (Code 832) as Nortoria Turner. The correct name is Nortoria Nock. We apologize for the error.



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